ABSTRACT

METHOD AND APPARATUS FOR ENCODING A PRODUCT CODE

An apparatus for producing a product code having a first dimension systematic block code of length n_x elements and a second dimension systematic block code of length n_y elements has a first dimension encoder 12 for receiving a data element stream 11 to produce the first dimension block code having k_x data elements and n_x-k_x parity elements, the parity elements being derived from the data elements. The first dimension encoder is arranged to produce k_y first dimension code vectors where k_y is the data element length of the second dimension systematic block code. The second dimension encoder 14-16 is representative of n_x encoders. The second dimension encoder receives the first dimension code vectors as they are produced and derives (n_xn_y-n_xk_y) parity elements for the second dimension systematic block code. The second encoder is arranged to output the second dimension code vectors as each is produced so as to thereby produce the encoded product code